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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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137 7590 05/14/2008 DOW CORNING CORPORATION CO1232 2200 W. SALZBURG ROAD P.O. BOX 994 MIDLAND, MI 48686-0994				
EXAMINER				
OJURONGBE, OLATUNDE S				
ART UNIT		PAPER NUMBER		
4145				
NOTIFICATION DATE		DELIVERY MODE		
05/14/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

Office Action Summary

Application No.

10/581,435

Applicant(s)

CREUTZ ET AL.

Examiner

OLATUNDE S. OJURONGBE

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 20060602
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. **Claims 2-7** are objected to because of the following informalities: Line 1 of each claim cites "A foam control composition" and it is unclear whether the claims are referring to the foam control composition of claim 1, for clarity purpose, "A foam control composition" should be changed to "The foam control composition" for each of claims 2-7.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-3 and 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Hostis et al (EP 1075863) in view of Hart (US 5,800,738), in further view of Chatterji et al (US 6,417,142).

Regarding **claim 1**, L'Hostis et al discloses a foam control composition [see foam control agents, 0010, line 1] comprising a liquid polyisobutene [0017, line 6], a branched siloxane resin [see non-linear siloxane 0019, line 1], a particulate filler which is inherently insoluble in the liquid polyisobutene [see hydrophobic fillers, 0027, line 1-0029, line 4], and an organic polyol ester [see esters of glycerol, 0034, line 13].

Though L'Hostis et al does not explicitly disclose the particulate filler being insoluble in the liquid polyisobutene, since most of the hydrophobic fillers disclosed by L'Hostis et al [0027, line 1-0029, line 4] are the same as those disclosed by the instant application [see instant specification 0008, line 1-end], and a chemical composition and its properties are inseparable; therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990), hence identical hydrophobic fillers disclosed by L'Hostis et al and the instant application, are insoluble in the liquid polyisobutene.

Though L'Hostis et al does not disclose the liquid polyisobutene having a molecular weight in the range 200 to 1500, the use of low molecular weight liquid polyisobutene as foam control agent is well known in the art as evidenced by Hart. (col.1, lines 7-10).

Hart discloses that an advantage of lower molecular weight polyisobutylenes over higher molecular weight polyisobutylenes is that lower molecular weight polyisobutylenes, because of their lower viscosities, are easier to handle and do not require pretreatment steps such as heating and dilution in solvent (col.2, line 61-col.3, line 4) and further discloses the polyisobutylenes having molecular weights in the range from about 224 daltons to 504 daltons,(col.2, lines 32-34), with a preferred polyisobutylene having an average molecular weight of 320(col.2, line 37).

Since the use of low molecular weight polyisobutylenes does not require extra pretreatment step such as heating and dilution in solvent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a low molecular weight polyisobutylene, especially the preferred polyisobutylene having an average molecular weight of 320 as disclosed by Hart in the foam control composition of L'Hostis et al; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Polyisobutylene is the same as polyisobutene.

Though modified L'Hostis et al does not disclose an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 7 to 36 carbon atom, since L'Hostis et al discloses esters of glycerol as one of the components of the

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invention [0034, line 13] and glycerol tristearate is well known in the art as a non-toxic, environmentally safe component of defoaming compositions, as evidenced by Chatterji et al (col.3, lines 19-21), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used glycerol tristearate in the foam control composition of modified L'Hostis et al because of it's non-toxic and environmentally safe properties; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Glycerol tristearate is an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 18 carbon atoms.

Regarding **claim 2**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the foam control composition wherein the liquid polyisobutene has a molecular weight in the range 200 to 500 (see 32, Hart, col.2, lines 32-34 and col.2, line 37) and the branched siloxane resin is soluble in the liquid polyisobutene [0022, lines 1-2].

Modified L'Hostis et al discloses the branched siloxane resin being soluble in a mixture of an organopolysiloxane (A) and the organic liquid (B) [0022 lines 1-2], this discloses the branched siloxane resin being soluble in the organic liquid (B), which is the liquid polyisobutene.

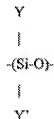
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Regarding **claim 3**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the foam control composition wherein the branched siloxane resin consists of monovalent trihydrocarbonsiloxy (**M**) groups of the formula $R''_3SiO_{1/2}$ [0019, lines 3-4] and tetrafunctional (**Q**) groups $SiO_{4/2}$ [0019, line 4] wherein R'' denotes an alkyl group(see monovalent hydrocarbon group, 0019, line 4 and CH_3 , 0028, line 7] and the number ratio of **M** groups to **Q** groups is in the range 0.4:1 to 1.1:1.[0019, lines 4-6].

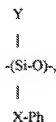
Regarding **claim 5**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the foam control composition substantially free of polydiorganosiloxane fluid. [see weight ratio of organopolysiloxane material (**A**) to fluid (**B**), 10/90, 0018, line 1].

Regarding **claim 6**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the foam control composition wherein the composition further comprises 10 to 100% by weight based on the liquid hydrocarbon polymer of a polysiloxane fluid [see 50/50 to 25/75 weight ratio of organopolysiloxane material (**A**) to fluid (**B**)] comprising at least 10% diorganosiloxane units of the formula (see comprises at least 50% diorganosiloxane units of the formula, 0012, line 1]

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and inherently up to 90% diorganopolysiloxane units of the formula [see diorganosiloxane units containing a -X-Ph group may comprise substantially all of the diorganosiloxane unit in (A), 0011, lines 4-5].



wherein X denotes a divalent aliphatic organic group bonded to silicon through a carbon atom [0011, lines 6-8]; Ph denotes an aromatic group [0011, lines 5-6]; Y denotes an alkyl group having 1 to 4 carbon atoms [0011, line 3]; and Y' denotes an aliphatic hydrocarbon group having 1 to 24 carbon atoms[0012, line 3].

Since modified L'Hostis et al discloses a foam control composition comprising diorganosiloxane with substantially all units being the diorganosiloxane unit with X-Ph groups [0011, lines 4-5], this inherently discloses up to 90%, because a unit that accounts for 90% of a polymer accounts for substantially all the polymer.

Regarding **claim 7**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the foam control composition, wherein the composition further comprises a surfactant, [0034, line 1].

L'Hostis et al discloses that the foam control composition comprises one or more surfactants [0034, line 1], hence, other surfactants can be used concurrently with the glycerol tristearate.

6. **Claims 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Hostis et al (EP 1075863) in view of Hart (US 5,800,738), in further view of Chatterji et al (US 6,417,142).

Regarding **claim 11**, L'Hostis et al discloses a method of manufacturing a water-dispersible foam control composition [0035, line1-2] comprising dispersing in a water-dispersible carrier a foam control composition[0035, lines 2-4] comprising a liquid polyisobutene [0017,line 6], a branched siloxane resin[see non-linear siloxane, 0019, line 1], a particulate filler which is inherently insoluble in the liquid polyisobutene [see hydrophobic fillers, 0027, line 1-0029, line 4], and an organic polyol ester which is a polyol[see esters of glycerol, 0034, line 13].

Though L'Hostis et al does not explicitly disclose the particulate filler being insoluble in the liquid polyisobutene, since most of the hydrophobic fillers disclosed by L'Hostis et al [0027, line 1-0029, line 4] are the same as those disclosed by the instant application [see instant specification 0008, line 1-end], and a chemical composition and its properties are inseparable; therefore, if the prior art teaches the identical chemical

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structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990), hence identical hydrophobic fillers disclosed by L'Hostis et al and the instant application are insoluble in the liquid polyisobutene.

Though L'Hostis et al does not disclose the liquid polyisobutene having a molecular weight in the range 200 to 1500, the use of low molecular weight liquid polyisobutene as foam control agent is well known in the art as evidenced by Hart. (col.1, lines 7-10).

Hart discloses that an advantage of lower molecular weight polyisobutylenes over higher molecular weight polyisobutylenes is that lower molecular weight polyisobutylenes, because of their lower viscosities, are easier to handle and do not require pretreatment steps such as heating and dilution in solvent (col.2, line 61-col.3, line 4) and further discloses the polyisobutylenes having molecular weights in the range from about 224 daltons to 504 daltons,(col.2, lines 32-34), with a preferred polyisobutylene having an average molecular weight of 320.(col.2, line 37).

Since the use of low molecular weight polyisobutylenes does not require extra pretreatment step such as heating and dilution in solvent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a low molecular weight polyisobutylene, especially the preferred polyisobutylene having an average molecular weight of 320 as disclosed by Hart in the foam control composition of L'Hostis et al; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Polyisobutylene is the same as polyisobutene.

Though modified L'Hostis et al does not disclose an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 7 to 36 carbon atom, since L'Hostis et al discloses esters of glycerol as one of the components of the invention [0034, line 13] and glycerol tristearate is well known in the art as a non-toxic, environmentally safe component of defoaming compositions, as evidenced by Chatterji et al (col.3, lines 19-21), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used glycerol tristearate in the foam control composition of modified L'Hostis et al because of it's non-toxic and environmentally safe properties; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Glycerol tristearate is an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 18 carbon atoms.

Regarding **claim 12**, L' Hostis et al discloses a method of manufacturing a granulated foam control agent comprising depositing onto a particulate carrier [see zeolite, 0040, line 1 and 0055, lines 1- 3] a foam control composition [see foam control agent, 0055, line 1-3]] comprising a liquid polyisobutene [0017,line 6], a branched siloxane resin[see non-linear siloxane, 0019, line 1], a particulate filler which is inherently insoluble in the liquid polyisobutene [see hydrophobic fillers, 0027, line 1-

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0029, line 4], and an organic polyol ester which is a polyol[see esters of glycerol, 0034, line 13].

Though L'Hostis et al does not explicitly disclose the particulate filler being insoluble in the liquid polyisobutene, since most of the hydrophobic fillers disclosed by L'Hostis et al [0027, line 1-0029, line 4] are the same as those disclosed by the instant application [see instant specification 0008, line 1-end], and a chemical composition and its properties are inseparable; therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990), hence identical hydrophobic fillers disclosed by L'Hostis et al and the instant application are insoluble in the liquid polyisobutene.

Though L'Hostis et al does not disclose the liquid polyisobutene having a molecular weight in the range 200 to 1500, the use of low molecular weight liquid polyisobutene as foam control agent is well known in the art as evidenced by Hart. (col.1, lines 7-10).

Hart discloses that an advantage of lower molecular weight polyisobutylenes over higher molecular weight polyisobutylenes is that lower molecular weight polyisobutylenes, because of their lower viscosities are easier to handle and do not require pretreatment steps such as heating and dilution in solvent (col.2, line 61-col.3, line 4) and further discloses the polyisobutylenes having molecular weights in the range from about 224 daltons to 504 daltons,(col.2, lines 32-34), with a preferred polyisobutylene having an average molecular weight of 320.(col.2, line 37).

Since the use of low molecular weight polyisobutylenes does not require extra pretreatment step such as heating and dilution in solvent, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a low molecular weight polyisobutylene, especially the preferred polyisobutylene having an average molecular weight of 320 as disclosed by Hart in the foam control composition of L'Hostis et al; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Polyisobutylene is the same as polyisobutene.

Though modified L'Hostis et al does not disclose an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 7 to 36 carbon atom, since L'Hostis et al discloses esters of glycerol as one of the components of the invention [0034, line 13] and glycerol tristearate is well known in the art as a non-toxic, environmentally safe component of defoaming compositions, as evidenced by Chatterji et al (col.3, lines 19-21), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used glycerol tristearate in the foam control composition of modified L'Hostis et al because of it's non-toxic and environmentally safe properties; such combination would amount to nothing more than the use of a known element for its intended use in a known environment in order to achieve entirely expected result.

Glycerol tristearate is an organic polyol ester which is a polyol substantially fully esterified by carboxylate groups each having 18 carbon atoms.

Regarding **claim 13**, modified L'Hostis et al discloses all the claim limitations as set forth above and further discloses the method further comprises depositing a water-soluble or water-dispersible binder onto the particulate carrier [see aqueous solution of a polycarboxylate binder polymer, 0055, lines 1-3].

7. **Claims 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over L'Hostis et al (EP 1075863) in view of Hart (US 5,800,738), in further view of Chatterji et al (US 6,417,142) as applied to claim 1 above, in further view of Grinschgl et al (US 6177124). Regarding **claim 4**, modified L'Hostis et al discloses all the claim limitations as set forth above and further inherently discloses the foam control composition wherein the particulate filler is a silica filler (col.7, lines 8-9) with an average particle size of from 0.5 to 30 um (col.7 lines 24-25 and Sipernat D 10, col.11, line 5). Though modified L'Hostis et al does not explicitly disclose the average particle size of the silica filler being from 0.5 to 30 um, the average particle size of Sipernat D 10 is explicitly disclosed by Grinschgl et al, as 5 um, this anticipates the average particle size as claimed (see mean particle size um 5, col.2, line 33).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLATUNDE S. OJURONGBE whose telephone number

is (571)270-3876. The examiner can normally be reached on Monday-Thursday, 7.15am-4.45pm, EST time, Alt Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272 1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

O.S.O

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 4145